

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

REC'D 20 JUN 2005

PCT PCT

To:

see form PCT/ISA/220

98/4

## WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing  
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference  
see form PCT/ISA/220

**FOR FURTHER ACTION**  
See paragraph 2 below

International application No.  
PCT/JP2005/000451

International filing date (day/month/year)  
11.01.2005

Priority date (day/month/year)  
15.01.2004

International Patent Classification (IPC) or both national classification and IPC  
G06F11/07, G06F9/45

Applicant  
MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.

### 1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

### 2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1b(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

### 3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/JP2005/000451

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**Box No. I Basis of the opinion**

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1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
  - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material:
    - ☐ a sequence listing
    - ☐ table(s) related to the sequence listing
  - b. format of material:
    - ☐ in written format
    - ☐ in computer readable form
  - c. time of filing/furnishing:
    - ☐ contained in the international application as filed.
    - ☐ filed together with the international application in computer readable form.
    - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/JP2005/000451

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**Box No. V Reasoned statement under Rule 43b/s.1(a)(i) with regard to novelty, Inventive step or industrial applicability; citations and explanations supporting such statement**

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**1. Statement**

|                               |             |                    |
|-------------------------------|-------------|--------------------|
| Novelty (N)                   | Yes: Claims | 3-12,15            |
|                               | No: Claims  | 1,2,13,14,16,17-21 |
| Inventive step (IS)           | Yes: Claims |                    |
|                               | No: Claims  | 3-12,15            |
| Industrial applicability (IA) | Yes: Claims | 1-21               |
|                               | No: Claims  |                    |

**2. Citations and explanations**

**see separate sheet**

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**Box No. VII Certain defects in the international application**

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The following defects in the form or contents of the international application have been noted:

**see separate sheet**

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**Box No. VIII Certain observations on the international application**

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The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

**see separate sheet**

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING  
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/JP2005/000451

Reference is made to the following documents:

- D1: US-A-6 149 318 (CHASE ET AL) 21 November 2000 (2000-11-21)
- D2: US 2002/040450 A1 (HARRIS JEREMY GRAHAM ET AL) 4 April 2002 (2002-04-04)
- D3: EP-A-0 458 556 (INTERNATIONAL BUSINESS MACHINES CORPORATION) 27 November 1991 (1991-11-27)

**Re Item V.**

**NOVELTY:**

In light of the hereinabove documents cited in the international search report, the invention as presently defined in the present independent claims does not appear to meet the criteria mentioned in Article 33(1) PCT, i.e. does not appear to be novel and/or to involve an inventive step.

From the present description on page 5 and page 22, lines 21-27, it is understood that the main object of the invention is to provide a method and system for installing, at the stage of compiling of a source code, range information of a variable that a pointer points and information for a failure recovering into the pointer variable. Hence, recovering processing suitable for data that has caused the failure can be performed according said failure recovering information. More in particular, illegal access exceptions can be recovered and continuation of processing can be enabled without destroying unrelated data in the writing processing beyond the range of data, and the data can be read safely without reading unrelated data in the read processing beyond the range of the data.

The formulation of present independent claims 1, 13 and 16 when defining the solution to the above identified problem, is deemed broad to the extent that the teachings of the above cited document D1 is sufficient for demonstrating that said claims lack of novelty, Article 33(2) PCT.

In this respect, it is particularly referred to the passages of D1 which are cited in the search report which unambiguously define a method or system falling under the terms of present claim 1, 13 and 16.

This point of view is principally supported by the fact that *the Type and Bounds recovery for C and C++ pointers* (D1, col.17) and the recovery of *the inexact types into the exact types* (D1, col.28) anticipate in their effect and function the judging and failure recovery process features which are based on the range information and failure recovery information of present independent claims 1,13 and 16.

It follows that claims 1,13 and 16 are not novel.

The same applies to independent claims 17, 18 and 21, since said claims merely define generic aspects of compiling the source code, said source code merely corresponding to the method equivalents features already defined in method claim 1.

In the dependent claims 2,19 and 20 minor modifications to the respective head claims are be set out, all of which appear not to be novel over the teachings of D1.

**INVENTIVE STEP:**

Independent claim 15 fundamentally appears to differ from the other independent claims, in that it further define the feature of an information center operable to communicate recovery information to the information processing system.

Therefore claim 15 appears to be novel over D1.

In said difference, however, no contribution to inventive step can be seen since said differing feature merely constitutes a commonplace feature, as is illustrated by D3 (col.12) and because it would be obvious for the person skilled in the art, having knowledge of D1 and faced to the problem of having to communicate such recovery information to the information processing apparatus according to D1, to adapt said latter accordingly, for instance, by integrating the solution proposed in D3 into the system disclosed in D1. Hence, the skilled person would arrive at a system falling under the terms of independent

claim 15 without having to exercise any inventive skill.

In the dependent claims 3-12, minor modifications to the respective head claims are set out, all of which, when not directly deductive from the teachings of D1 are known from D2 (see in particular para. [0072]-[0077] thereof) and hence merely relate to commonplace features which the skilled person can readily combine with the features already defined in any of the head claims without having to exercise any inventive skill.

**Re Item VII.**

If amendments are filed, the applicant must comply with the requirements of Rule 66.8 PCT and indicate the basis in the originally filed application of the amendments made --- Article 34(2) (b) PCT --- otherwise these amendments will not be taken into consideration for the establishment of international preliminary examination.

Thereby:

- The applicant should be aware that the mere fact that a specifically chosen feature defined by the present application, which may differ from the specific teachings of D1, or of any other related prior art teachings, or of any obvious combination of said prior art, although being novel, does not at all by itself by necessity imply the existence of an inventive step.
- In order to meet the requirements of Rule 5.1(a)(ii) PCT, document D1, which is considered to constitute the closest state of the art document, and documents D2 and D3 should be identified in the description and the relevant background art disclosed therein should be briefly discussed.

The applicant will also have to bring the description into conformity with these claims.

The Applicant is free to amend the application in any way he chooses provided that his amendments remove the deficiency and otherwise satisfy the requirements of the PCT.

All the above objections should be remedied in order to bring the application within the frame of the PCT, unless the Applicant can provide convincing arguments to the contrary when filing the next amendments.

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International application No.

PCT/JP2005/000451

**Re Item VIII**

The attention of the applicant is drawn to the fact that the application contains an unjustified number of independent claims in the same category, to wit, three independent method claims (claims 1, 17 and 18) and four independent apparatus claims (13, 15, 16 and 21).

In consequence, the requirement of conciseness following from Article 6 PCT is not met.